CLAIMS

Therefore, the following is claimed:

- 1. A system for attenuating leakage signals in a communication system,
 2 comprising;
- a plurality of amplifiers coupled between a plurality of communication connections and a communication device, at least one of said plurality of amplifiers configured to have a nearly-zero impedance characteristic such that at least one leakage signal originating on a first communication connection of said plurality of communication connections cannot propagate from said first communication connection to a second communication connection of said plurality of communication connections.
- 1 2. The system of claim 1, wherein at least one of said plurality of amplifiers 2 is configured as a negative feedback amplifier.
- 1 3. The system of claim 1, further comprising a second plurality of amplifiers, 2 said second plurality of amplifiers coupled between a second plurality of communication 3 connections and said communication device.
- 1 4. The system of claim 1, wherein at least one of said plurality of communications connections is a digital subscriber loop.

4

- A method for shunting leakage signals in a communication system, the 5. 1 method comprising the steps of: 2 coupling at least one amplifier between a first communication connection and a 3 communication device, said amplifier having a nearly-zero impedance characteristic; and 4 shunting at least one leakage signal originating on said first communication 5
- connection away from a second communication connection coupled to said 6 communication device. 7
- A system for shunting leakage signals in a communication system, 6. 1 2 comprising:
- means for shunting, said means for shunting having a nearly-zero impedance 3 characteristic; and
- means for coupling said shunting means to a first communication connection and 5 a communication device, 6
- such that said shunting means prevents at least one leakage signal originating on said first 7
- communication connection from propagating to a second communication connection 8
- coupled to said communication device. 9
- The system of claim 6, wherein said coupling means further couples said 7. 1 second communication connection to said shunting means. 2

- A system for attenuating leakage signals in a communication system, 8. 1 2 comprising; a communication device; and 3 a plurality of amplifiers, said plurality of amplifiers coupled between a plurality 4 of communication connections and said communication device, 5 wherein said plurality of amplifiers have a nearly-zero impedance characteristic such that 6 at least one leakage signal originating on a first communication connection coupled to 7 said communication device cannot propagate from said first communication connection 8 to a second communication connection coupled to said communication device. 9
- 1 9. The system of claim 8, wherein said communication device time 2 multiplexes said plurality of signals onto a single channel.
- 1 10. The system of claim 8, wherein said communication device frequency 2 multiplexes said plurality of signals onto a plurality of channels.
- 1 11. The system of claim 8, wherein said communication device is a signal multiplexing communication device.